A New Reactive Power Optimization Algorithm

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Summary

This paper presents an algorithm for optimizing reactive power using particle swarm algorithm. A new implementation for the particle swarm algorithm has been applied. The objective function of the proposed algorithm is to minimize the system active power loss. The control variables are generator bus voltages, transformer tap positions and switch-able shunt capacitor banks. The proposed algorithm has been applied to practical IEEE 6-bus system. The proposed algorithm shows better results as compared to previous work.